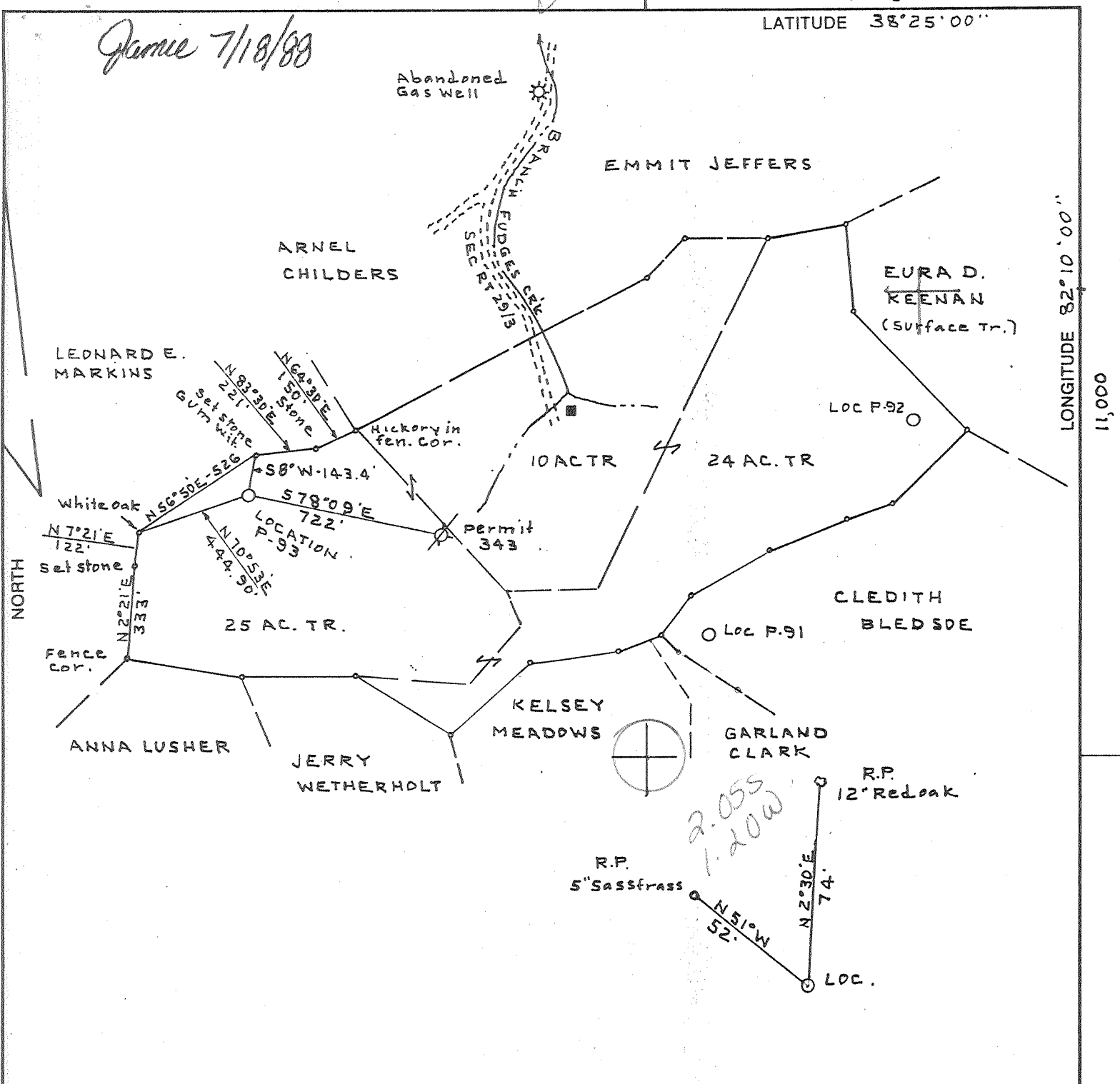


6275'

LATITUDE 38°25'00"

Janice 7/18/88



LONGITUDE 82°10'00" 000'11"

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. BK 112 PG 44
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1:2500
 PROVEN SOURCE OF ELEVATION USGS BM 149 JJS
E1. 676

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF ENERGY.
 (SIGNED) C. J. Volley Jr.
 R.P.E. _____

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION



DATE JULY 5, 19 88
 OPERATOR'S WELL NO. P-93
 API WELL NO. _____

WELL TYPE: OIL GAS LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS,") PRODUCTION STORAGE _____ DEEP _____ SHALLOW
 LOCATION: ELEVATION 885.84' WATERSHED FUDGES CREEK OF MVD RIVER
 DISTRICT GRANT 3 COUNTY CABELL
 QUADRANGLE MILTON 476 081 4 ±15' WC
 SURFACE OWNER EURA D. KEENAN ACREAGE 58.5
 OIL & GAS ROYALTY OWNER EURA D. KEENAN LEASE ACREAGE 58.5
 LEASE NO. 2640
 PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____
 PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
 TARGET FORMATION BEREA ESTIMATED DEPTH 2630'
 WELL OPERATOR SOUTHEASTERN GAS CO. DESIGNATED AGENT FRED RADFORD
 ADDRESS P.O. BOX 2347 821 ADDRESS P.O. BOX 2347
CHARLESTON WV 25328 CHARLESTON WV 25328

COUNTY NAME PERMIT

6-6 Merritt Creek Salt Rock (206) JUL 22 1988 JUL 28 1988

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State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Well Operator's Report of Well Work

Form name: KEENAN, EURA D.

Operator Well No.: P-93

LOCATION: Elevation: 885.84 Quadrangle: MILTON

District: GRANT County: CARELL

Latitude: 11000 Feet South of 38 Deg. 25Min. 0 Sec.

Longitude 6275 Feet West of R2 Deg. 10 Min. 0 Sec.

Company: SOUTHEASTERN GAS CO.

P. O. BOX 2347

CHARLESTON, WV

Agent: FRED A. RADFORD

Inspector: JERRY TEPHAROCK

Permit Issued: 07/19/88

Well work Commenced: 04-06-89

Well work Completed: 04-30-89

Verbal Plugging

Permission granted on:

Rotary Cable _____ Ris _____

Total Depth (feet) 2650

Fresh water depths (ft) _____

Salt water depths (ft) _____

Is coal being mined in area (Y/N)? N

Coal Depths (ft): _____

Casings & Tubing Size	Used in Drilling	Left in Well	Cement Fill Cu. Ft.
8-5/8"	927	927	336
4-1/2"	2608	2608	224
2-3/8"	2590	2590	

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OPEN FLOW DATA

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Producing formation Berea Pay zone depth (ft) 2547
 Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow 10 MCF/d Final open flow 15 Bbl/d
 Time of open flow between initial and final tests _____ Hours
 Static rock Pressure 600 psig (surface pressure) after 72 Hours

Second producing formation _____ Pay zone depth (ft) _____
 Gas: Initial open flow _____ MCF/d Oil: Initial open flow _____ Bbl/d
 Final open flow _____ MCF/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests _____ Hours
 Static rock Pressure _____ psig (surface pressure) after _____ Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

VICE PRESIDENT

For: SOUTHEASTERN GAS CO.

By: *Fred A. Radford*

Date: July 14, 1989

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

JUL 28 1989

Perforated Berea From 2547' to 2557' - 11 holes.

Formation breakdown at 1900 psig

Fracture s/ 75Q foam at 21 BPM.

Average Pressure - 2656 psig

ISIP - 1990 psig

Total Sand - 32,000#

Total N₂ - 492,000 C.F.

Total Fluid - 245 Bbls.

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

Formation	Top	Bottom	Remarks
Topsoil	0'	5'	
Sand & Shale	5'	125'	
Sand	125'	200'	
Shale	200'	398'	
Sand	398'	455'	
Shale	455'	510'	
Sand	510'	580'	
Shale	580'	617'	
Sand	617'	871'	
Shale	871'	925'	
Sand & Shale	925'	1416'	Salt Water @ 905'
Salt Sand	1416'	1620'	
Shale	1620'	1630'	
Maxton Sand	1630'	1731'	
Little Lime	1731'	1752'	
Pencil Cave Shale	1752'	1763'	
Big Lime	1763'	1958'	
Shaley Lime	1958'	2011'	
Injun Sand	2011'	2093'	Salt Water @ 2025'
Weir Shale	2093'	2501'	
Coffee (Sunbury) Shale	2501'	2547'	
Berea Sand	2547'	2558'	Show of Oil & Gas @ 2552'
Devonian Shale	2558'	2650'	

2650' D.T.D.

2652' L.T.D.

JUL 28 1989

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DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

- 1) Date: July 11, 1988
- 2) Operator's well number P-93
- 3) API Well No: 47 - 011 - 0830
state - County - Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
 - (a) Name Eura D. Keenan
Address 988 Fudges Creek Rd.
Barboursville, WV 25504
 - (b) Name _____
Address _____
 - (c) Name _____
Address _____
- 6) Inspector Jerry Tephabock
Address Rt. 1, Box 101-A
Ripley, WV 25271
Telephone (304)- 372-6805

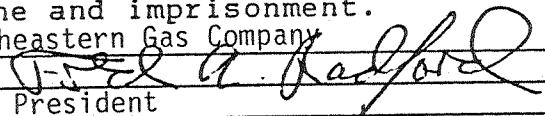
- 5) (a) Coal Operator:
Name (Coal not operated)
Address _____
- (b) Coal Owner(s) with Declaration
Name Eura D. Keenan
Address 988 Fudges Creek Rd.
Barboursville, WV 25504
Name _____
Address _____
- (c) Coal Lessee with Declaration
Name (Coal not Leased)
Address _____

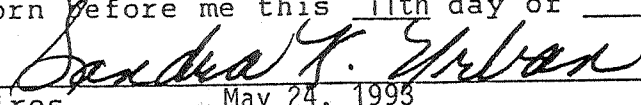
TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

_____ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR
X Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through _____ on the above named parties, by:
X Personal Service (Affidavit attached)
_____ Certified Mail (Postmarked postal receipt attached)
_____ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application. I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.
Well Operator Southeastern Gas Company
By: Fred A. Radford 
Its: Vice President
Address P O Box 2347
Charleston, WV 25328
Telephone 304-343-9566

Subscribed and sworn before me this 11th day of July, 19 88
Sandra K. Urban  Notary Public
My commission expires May 24, 1993

011-0830

Issued 7/19/88 Expires 7/19/90

Page 3 of

FORM WW-2B

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
WELL WORK PERMIT APPLICATION

- 1) Well Operator: Southeastern Gas Company *4040, 3, 476*
- 2) Operator's Well Number: P-93 3) Elevation: 885.84
- 4) Well type: (a) Oil / or Gas /
(b) If Gas: Production / Underground Storage /
Deep / Shallow /
- 5) Proposed Target Formation(s): Berea Sandstone
- 6) Proposed Total Depth: 2630' feet
- 7) Approximate fresh water strata depths: 319' , 886' , 935'
- 8) Approximate salt water depths: 1436'
- 9) Approximate coal seam depths: 629'
- 10) Does land contain coal seams tributary to active mine? Yes / No /
- 11) Proposed Well Work: Drill New Well
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor						
Fresh Water						
Coal	9-5/8"	J	32.3	920'	920'	38CSR18-11-3 Cement to Surface 38CSR18-11-2.2
Intermediate						
Production	4-1/2"	J	10.5	2630'	2630'	38CSR18-11-1 175
Tubing	2-3/8"	J	4.6	2630'	2630'	
Liners						

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PACKERS : Kind _____
Sizes _____
Depths set _____

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

For Division of Oil and Gas Use Only

Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond Blanket Agent
 (Type)

1398